E. Eng. Lib
Papers

Index of Feature Material

MATERIALS & METHODS

Volume 26

July—December 1947, Inclusive

Feature editorial matter from Volume 26 of MATERIALS & METHODS covering issues from July through December 1947 is indexed here. Material covered in the index includes feature articles, MATERIALS & METHODS Manuals and Engineering File Facts.

For the sake of brevity, we have omitted from the index such departmental material as Digests, Shop Notes, Book Reviews, New Materials and Equipment, Contents Noted, Production Frontiers and The Last Word.

Aluminum and its Alloys:

BONDERIZING PROCESS FOR ALUMINUM AND STEEL—Oct., p. 99
IMPROVING THE QUALITY OF HEAT TREATED ALUMINUM ALLOY PARTS—Sept., p. 90
AUSTENITIC MALLEABLE IRON—Sept., p. 85
BERYLLIUM COPPER, ECONOMIES RESULT WHEN PARTS ARE DESIGNED FOR—Dec., p. 79
BONDERIZING PROCESS FOR ALUMINUM AND STEEL—Oct., p. 99
BONDING SAPPHIRE TO METAL—Oct., p. 84
CARBIDES FOR HIGH TEMPERATURE APPLICATIONS—Dec., p. 85

Cast Iron:

AUSTENITIC MALLEABLE IRON—Sept., p. 85
IS CAST IRON SUPERIOR TO STEEL IN CORROSION RESISTANCE?—Aug., p. 82
SALVAGE OF CAST IRON THROUGH HEAT TREATMENT—Nov., p. 87
STEEL TUBING AND PLATE REPLACES CASTINGS IN HEAVY-DUTY PARTS—Dec., p. 68
WHEN AND HOW TO USE CAST IRON—Dec., p. 71

Casting:

WHEN PARTS SHOULD BE DIE CASTINGS RATHER THAN STAMPINGS—Oct., p. 87
CLAD STEELS (Materials & Methods Manual)—Sept., p. 97

Cleaning and Finishing:

BONDERIZING PROCESS FOR ALUMINUM AND STEEL—Oct., p. 99
ELECTROPOLISHING SILVER-PLATED PARTS IN CYANIDE SOLUTIONS—Aug., p. 78
MACHINE DESIGNED FOR HIGH-SPEED PLATING—Nov., p. 79
PROTECTIVE FILMING PROCESS FOR TINPLATE—Aug., p. 97
CLEDO BRUNETTI RECEIVES 1947 MATERIALS & METHODS ACHIEVEMENT AWARD—Nov., p. 63

Coatings and Finishes:

ADHESION TESTING OF ORGANIC COATINGS (File Facts)—Sept., p. 115
ORGANIC FINISHES FOR METALS (Materials & Methods Manual)—Dec., p. 95
PASTE FORMING RESIN USED FOR COATINGS, MOLDING AND FILM MAKING—Nov., p. 71
PROTECTING SURFACE FINISH WITH STRIPPABLE PLASTIC COATINGS—July, p. 70
TYPES AND CHARACTERISTICS OF MODERN PORCELAIN ENAMELS—July, p. 93
ENGINEERING ECONOMICS OF MAGNESIUM—Dec., p. 61
CONTINUOUS GAS CARBURIZING WITHOUT A GAS GENERATOR—Oct., p. 92

Copper, Brass, Bronze:

ECONOMIES RESULT WHEN PARTS ARE DESIGNED FOR BERYLLIUM COPPER—Dec., p. 79
MAGNETIC AND ELECTRICAL MATERIALS (File Facts)—Aug., p. 115

Corrosion:

IS CAST IRON SUPERIOR IN CORROSION RESISTANCE TO STEEL?—Aug., p. 82
RESISTANCE OF SEVERAL STAINLESS STEELS TO VARIOUS CORROSIVE MEDIA (File Facts)—July, p. 121
ELECTROPOLISHING SILVER-PLATED PARTS IN CYANIDE SOLUTIONS—Aug., p. 78

Engineering File Facts:

ADHESION TESTING OF ORGANIC COATINGS—Sept., p. 115
FORGING STAINLESS STEEL—Oct., p. 125
GENERAL PROPERTIES AND USES FOR MOLDED THERMOSETTING PLASTICS—Dec., p. 111
GLASS FIBERS—TYPES, PROPERTIES AND USES—Nov., p. 113
INDUSTRIAL FELTS—July, p. 123
LEAD ALLOYS FOR INDUSTRY—Oct., p. 127
MAGNETIC AND ELECTRICAL MATERIALS—Aug., p. 115
PROPERTIES OF HARD ABRASIVES—Nov., p. 115
RESISTANCE OF SEVERAL STAINLESS STEELS TO VARIOUS CORROSIVE MEDIA—July, p. 121
SEIZING OF CERTAIN METALS AT 750 F—Sept., p. 113
EXPECT SHEET STEEL SHORTAGE TO EXTEND UNTIL JUNE 1948—July, p. 67

Fabricated Parts:

DIE CASTINGS THAT COST LESS THAN SCREW MACHINE PRODUCTS—Nov., p. 90
SCREW MACHINE PRODUCTS (Materials & Methods Manual)—Aug., p. 103
WHEN PARTS SHOULD BE DIE CASTINGS RATHER THAN STAMPINGS—Oct., p. 87

Forging and Forming:

FORGING STAINLESS STEEL (File Facts)—Oct., p. 125
HOLE PIERCING AND STAMPING IN ONE OPERATION—July, p. 80
HYDRAULIC FORMING OF STAINLESS STEEL—Nov., p. 68
MOLDING REPLACES FORMING TO PRODUCE PLASTIC CUP—Aug., p. 71
NITRIDED STEEL HOT FORMED AFTER HEAT TREATMENT—Oct., p. 80
PNEUMATIC FORMING OF ACRYLIC CABIN ENCLOSURES—Dec., p. 77
PRECISION DROP FORGING OF HIGH TEMPERATURE ALLOYS—Sept., p. 68
RING GEARS FORMED FROM STEEL BAR STOCK—Aug., p. 74

Heat Treating:

CONTINUOUS GAS CARBURIZING WITHOUT A GAS GENERATOR—Oct., p. 92
IGNITION OF MAGNESIUM ALLOYS DURING HEAT TREATMENT—July, p. 85
IMPROVING THE QUALITY OF HEAT TREATED ALUMINUM ALLOY PARTS—Sept., p. 90
ISOTHERMAL HEAT TREATMENT OF STEEL BALL BEARING RACES—Aug., p. 86
NITRIDED STEEL HOT FORMED AFTER HEAT TREATMENT—Oct., p. 80
ONE SALT BATH FOR BOTH CARBURIZING AND CYANIDING—July, p. 75
SALVAGE OF CAST IRON THROUGH HEAT TREATMENT—Nov., p. 87
HIGH-STRENGTH, LOW-ALLOY STEELS (Materials & Methods Manual)—July, p. 101
HIGH TEMPERATURE ALLOYS, PRECISION DROP FORGING OF—Sept., p. 68
HOLE PIERCING AND STAMPING IN ONE OPERATION—July, p. 80
HYDRAULIC FORMING OF STAINLESS STEEL—Nov., p. 68
IGNITION OF MAGNESIUM ALLOYS DURING HEAT TREATMENT—July, p. 85
INDUSTRIAL FELTS (File Facts)—July, p. 123
ISOTHERMAL HEAT TREATMENT OF STEEL BALL BEARING RACES—Aug., p. 86
JOINING CORROSION-RESISTANT ALLOYS BY SUBMERGED MELT WELDING—July, p. 89
LEAD ALLOYS FOR INDUSTRY (File Facts)—Oct., p. 127
MACHINE DESIGNED FOR HIGH-SPEED PLATING—Nov., p. 79
MAGNETIC AND ELECTRICAL MATERIALS (File Facts)—Aug., p. 115

Magnesium:

ENGINEERING ECONOMICS OF MAGNESIUM—Dec., p. 61
IGNITION OF MAGNESIUM ALLOYS DURING HEAT TREATMENT—July, p. 85
MAGNESIUM REPLACES FABRIC AIRCRAFT CONTROL SURFACES—Aug., p. 88

Materials & Methods Manuals:

CLAD STEELS—Sept., p. 97
HIGH-STRENGTH, LOW-ALLOY STEELS—July, p. 101
ORGANIC FINISHES FOR METALS—Dec., p. 95
RESISTANCE WELDING—Nov., p. 97
SCREW MACHINE PRODUCTS—Aug., p. 103

MATERIALS AND THEIR REQUIREMENTS FOR AUTOMOBILE STAMPINGS, BUMPERS AND PISTONS—Nov., p. 74
MOLDING REPLACES FORMING TO PRODUCE PLASTIC CUP—Aug., p. 71
MOLYBDENUM, PROPERTIES AND APPLICATIONS OF—Sept., p. 86
NEW FLUX MAKES EASIER THE SOLDERING OF ZINC-COATED PARTS—July, p. 78
NEW LATHE INCREASES PRODUCTION OF NONFERROUS PARTS—Sept., p. 72
NITRIDED STEEL HOT FORMED AFTER HEAT TREATMENT—Oct., p. 80

Nonferrous Metals:

SHOTPEENING OF NONFERROUS METALS—Nov., p. 83
SUPPLY OUTLOOK FOR NONFERROUS METALS—Oct., p. 75

Nonmetallic Materials:

BONDING SAPPHIRE TO METAL—Oct., p. 84
GLASS FIBERS—TYPES, PROPERTIES AND USES (File Facts)—Nov., p. 113
INDUSTRIAL FELTS (File Facts)—July, p. 123
PROPERTIES OF HARD ABRASIVES (File Facts)—Nov., p. 115
PROPERTIES AND USES OF TECHNICAL CERAMICS—Dec., p. 87
NYLON AS AN ENGINEERING MATERIAL—Sept., p. 80
ONE SALT BATH FOR BOTH CARBURIZING AND CYANIDING—July, p. 75
ORGANIC FINISHES FOR METALS—Dec., p. 95
PASTE FORMING RESIN USED FOR COATINGS, MOLDING AND FILM MAKING—Nov., p. 71

Plastics:

GENERAL PROPERTIES AND USES FOR MOLDED THERMOSETTING PLASTICS (File Facts)—Dec., p. 111
MOLDING REPLACES FORMING TO PRODUCE PLASTIC CUP—Aug., p. 71
NYLON AS AN ENGINEERING MATERIAL—Sept., p. 80
PASTE FORMING RESIN USED FOR COATINGS, MOLDING AND FILM MAKING—Nov., p. 71
PNEUMATIC FORMING OF ACRYLIC CABIN ENCLOSURES—Dec., p. 77
PROTECTING SURFACE FINISH WITH STRIPPABLE PLASTIC COATINGS—July, p. 70
PORCELAIN ENAMELS, TYPES AND CHARACTERISTICS OF MODERN—July, p. 93
PROPERTIES AND APPLICATIONS OF MOLYBDENUM—Sept., p. 86
PROPERTIES AND USES OF TECHNICAL CERAMICS—Dec., p. 87
PROTECTING SURFACE FINISH WITH STRIPPABLE PLASTIC COATINGS—July, p. 70
PROTECTIVE FILMING PROCESS FOR TINPLATE—Aug., p. 97
REDUCING MATERIALS COSTS THROUGH STANDARDIZATION—Sept., p. 63
RESISTANCE OF SEVERAL STAINLESS STEELS TO VARIOUS CORROSIVE MEDIA (File Facts)—July, p. 121
RESISTANCE WELDING (Materials & Methods Manual)—Nov., p. 97
RING GEARS FORMED FROM STEEL BAR STOCK—Aug., p. 74
SALVAGE OF CAST IRON THROUGH HEAT TREATMENT—Nov., p. 87
SCREW MACHINE PRODUCTS (Materials & Methods Manual)—Aug., p. 103
SEIZING OF CERTAIN METALS AT 750 F (File Facts)—Sept., p. 113
SELECTING, TESTING AND FABRICATING SPRING MATERIALS—Sept., p. 74
SHOTPEENING OF NONFERROUS METALS—Nov., p. 83

Steel:

BONDERIZING PROCESS FOR ALUMINUM AND STEEL—Oct., p. 99
CLAD STEELS (Materials & Methods Manual)—Sept., p. 97
EXPECT SHEET STEEL SHORTAGE TO EXTEND UNTIL JUNE 1948—July, p. 67
FORGING STAINLESS STEEL (File Facts)—Oct., p. 125
HIGH-STRENGTH, LOW-ALLOY STEELS (Materials & Methods Manual)—July, p. 101
HYDRAULIC FORMING OF STAINLESS STEEL—Nov., p. 68
IS CAST IRON SUPERIOR TO STEEL IN CORROSION RESISTANCE?—Aug., p. 82
ISOTHERMAL HEAT TREATMENT OF STEEL BALL BEARING RACES—Aug., p. 86
MAGNETIC AND ELECTRICAL MATERIALS (File Facts)—Aug., p. 115
NITRIDED STEEL HOT FORMED AFTER HEAT TREATMENT—Oct., p. 80
PRECISION DROP FORGING OF HIGH TEMPERATURE ALLOYS—Sept., p. 68
PROTECTIVE FILMING PROCESS FOR TINPLATE—Aug., p. 97
RESISTANCE OF SEVERAL STAINLESS STEELS TO VARIOUS CORROSIVE MEDIA (File Facts)—July, p. 121
RING GEARS FORMED FROM STEEL BAR STOCK—Aug., p. 74
STEEL RESEARCH HELPS MEET NEEDS OF INDUSTRY—Aug., p. 65
STEEL TUBING AND PLATE REPLACES CASTINGS IN HEAVY-DUTY PARTS—Dec., p. 68
WELDING, FLAME CUTTING STAINLESS AND CLAD STEELS—Oct., p. 102
WELDING STEEL TRAILER DOOR FRAMES—Aug., p. 93
SUPPLY OUTLOOK FOR NONFERROUS METALS—Oct., p. 75
TANTALUM AS AN ENGINEERING MATERIAL—Oct., p. 94

Testing and Inspection:

ADHESION TESTING OF ORGANIC COATINGS (File Facts)—Sept., p. 115
VECTOR FIELDS TO LOCATE DEEP-SEATED DEFECTS—Dec., p. 66
TYPES AND CHARACTERISTICS OF MODERN PORCELAIN ENAMELS—July, p. 93
VECTOR FIELDS TO LOCATE DEEP-SEATED DEFECTS—Dec., p. 66

Welding and Joining:

BONDING SAPPHIRE TO METAL—Oct., p. 84
JOINING CORROSION-RESISTANT ALLOYS BY SUBMERGED MELT WELDING—July, p. 89
NEW FLUX MAKES EASIER THE SOLDERING OF ZINC-COATED PARTS—July, p. 78
RESISTANCE WELDING (Materials & Methods Manual)—Nov., p. 97
WELDING, FLAME CUTTING STAINLESS AND CLAD STEELS—Oct., p. 102
WELDING STEEL TRAILER DOOR FRAMES—Aug., p. 93
WHEN AND HOW TO USE CAST IRON—Dec., p. 71
WHEN PARTS SHOULD BE DIE CASTINGS RATHER THAN STAMPINGS—Oct., p. 87

Authors' Index

ANDERSON, R. J., and ROBERTS, H. J.—Joining Corrosion-Resistant Alloys by Submerged Melt Welding—July, p. 89
BAYER, EDWARD C.—See Holcroft, Walter
BLACK, GEORGE—Adhesion Testing of Organic Coatings—(File Facts)—Sept., p. 115
BRICE, WILLIAM C.—Hydraulic Forming of Stainless Steel—Nov., p. 68
BURLESON, M. M.—Paste Forming Resin Used for Coatings, Molding and Film Making—Nov., p. 71
BURPO, ROBERT S., JR.—
Industrial Felts—(File Facts)—July, p. 123
Magnetic and Electrical Materials—(File Facts)—Aug., p. 115
CADY, EDWIN LAIRD—Nylon as an Engineering Material—Sept., p. 80
CANNER, A. D., TWELE, C., and CONNOR, T. J.—Machine Designed for High-Speed Metal Plating—Nov., p. 79
CARSON, ROBERT W.—Economies Result When Parts Are Designed for Beryllium Copper—Dec., p. 79
CHASE, HERBERT—
Die Castings That Cost Less Than Screw Machine Products—Nov., p. 90
When Parts Should Be Die Castings Rather Than Stampings—Oct., p. 87
CLAUSER, H. R.—
Organic Finishes for Metals (Materials & Methods Manual)—Dec., p. 95
Protecting Surface Finish With Strippable Plastic Coatings—July, p. 70
Protective Filming Process for Tinplate—Aug., p. 97
Reducing Material Costs Through Standardization—Sept., p. 63
CONNOR, T. J.—See Canner, A. D.
DANES, S. F.—Welding, Flame Cutting Stainless and Clad Steels—Oct., p. 102
DEMIRJIAN, S. G.—Precision Drop Forging of High Temperature Alloys—Sept., p. 68
DENHAM, ATHEL F.—Welding Steel Trailer Door Frames—Aug., p. 93
DONOHO, C. K.—Austenitic Malleable Iron—Sept., p. 85
DU MOND, T. C.—
Bonding Sapphire to Metal—Oct., p. 84
New Lathe Increases Production of Nonferrous Parts—Sept., p. 72
Screw Machine Products (Materials & Methods Manual)—Aug., p. 103
EAGAN, T. E.—When and How to Use Cast Iron—Dec., p. 71
EATON, S. E.—See Gray, Daniel
FRAZIER, JACK—Nitrided Steel Hot Formed After Heat Treatment—Oct., p. 80
GELOK, J.—Properties and Applications of Molybdenum—Sept., p. 86
GILLETTE, R. T.—Resistance Welding (Materials & Methods Manual)—Nov., p. 97
GRAY, DANIEL and EATON, S. E.—Electropolishing Silver-Plated Parts in Cyanide Solutions—Aug., p. 78
HAAXMA, HARRY C.—Molding Replaces Forming to Produce Plastic Cup—Aug., p. 71
HOLCROFT, WALTER and BAYER, EDWARD C.—Continuous Gas Carburizing Without a Gas Generator—Oct., p. 92
KILLEN, ROBERT—Vector Fields to Locate Deep-Seated Defects in Steel—Dec., p. 66
KNIGHT, HAROLD A.—
Bonderizing Process for Aluminum and Steel—Oct., p. 99
Engineering Economics of Magnesium—Dec., p. 61
Isothermal Heat Treatment of Steel Ball Bearing Races—Aug., p. 86
Sheet Steel Shortage to Extend Until June 1948—July, p. 67
Shotpeening of Nonferrous Metals—Nov., p. 83
Types and Characteristics of Modern Porcelain Enamels—July, p. 93
LUDWIG, DAVIDLEE V.—
Improving the Quality of Heat Treated Aluminum Alloy Parts—Sept., p. 90
Salvage of Cast Iron Through Heat Treatment—Nov., p. 87
MEAGLEY, NELSON G.—Materials for Automotive Parts—Nov., p. 74
MOCHEL, N. L.—Seizing of Certain Metals at 750 F—(File Facts)—Sept., p. 113
MORSE, ERNEST C.—Hole Piercing and Stamping in One Operation—July, p. 80
PARKER, C. M.—Steel Research Helps Meet Needs of Industry—Aug., p. 65
ROBERTS, H. J.—See Anderson, R. J.
ROSE, KENNETH—
Forging Stainless Steel—(File Facts)—Oct., p. 125
Glass Fibers—(File Facts)—Nov., p. 113
Pneumatic Forming of Acrylic Cabin Enclosures—Dec., p. 77
Ring Gears Formed from Steel Bar Stock—Aug., p. 74
Steel Tubing and Plates Replace Castings in Heavy-Duty Parts—Dec., p. 68
Tantalum as Engineering Material—Oct., p. 94
SAUNDERS, R. E.—Magnesium Replaces Fabric for Aircraft Control Surfaces—Aug., p. 88
SHERMAN, J. V.—Supply Outlook for Nonferrous Metals—Oct., p. 75
STEIGERWALD, FRANK—One Salt Bath for Both Carburizing and Cyaniding—July, p. 75
THURNAUER, HANS—Properties and Uses of Technical Ceramics—Dec., p. 87
TWELE, C.—See Canner, A. D.
WHITE, R. W.—Is Cast Iron Superior in Corrosion Resistance to Steel?—Aug., p. 82
WILLMORE, C. B., and PETERSON, S. W.—Ignition of Magnesium Alloys During Heat Treatment—July, p. 85
ZIMMERLI, F. P.—Selecting, Testing and Fabricating Spring Materials—Sept., p. 74